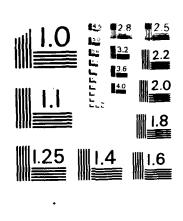
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FINAL REPORT

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Contract N00014-84-K-0332

Value Focused Thinking and the Study of Values

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January 1987

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Support from Contract N00014-84-K-0332 resulted in the research leading to seven journal articles published or accepted for publication in refereed journals, two additional articles submitted to refereed journals that are currently being considered, two articles to appear as chapters in books, four technical reports, and thirteen invite presentations at national and international scientific meetings. These are listed below:

Papers Published in Refereed Journal

New malines thereon makes right got.

- Keeney, R. L., "Structuring Public Utility Functions," Operations Research Letters, 3, 1984, pp. 1-4.
- Keeney, R. L., and Winkler, R. L., "Evaluating Decision Strategies for Equity of Public Risks," Operations Research, 33, 1985, pp.955-970.
- Keeney, R. L. with ten co-authors, "Research Needs in the Phenomena of Decision Making and Operations," IEEE Transactions on Systems, Man, and Cybernetics, SMC-15, 1985, pp. 764-74.
- Papers Accepted for Publishing in Refereed Journals
- Keeney, R. L., Renn, O., and von Winterfeldt, D., "Structuring Germany's Energy Objectives," <u>Energy Policy</u>.
- Keeney, R. L., and Lilien, G.L., "New Industrial Product Design and Evaluation Using Multiattribute Value Analysis," <u>Journal of Product Innovation Management</u>.
- Merkhofer, M.W., and Keeney, R.L., "A Multiattribute Utility Analysis of Alternative Sites for The Disposal of Nuclear Waste", Risk Analysis.
- Keeney, R. L., "An Analysis of the Portfolio of Sites to Characterize for Selecting a Nuclear Repository", Risk Analysis.
- Papers Submitted to Refereed Journals Currently Under Consideration.
- Keeney, R. L., "Structuring Objectives for Problems of Public Interest", Operations Research.
- Keeney, R. L., "Value-Driven Expert Systems for Decision Support", <u>Journal of Decision Support Systems</u>.

Papers to Appear as Chapters in Books

Keeney, R. L., "Value—Focused Thinking and the Study of Values", in <u>Decision Making: Descriptive, Normative, and Prescriptive Interactions</u> D. E. Bell, A. Tversky, and H. Raiffa (editors), Cambridge University Press, New York, 1987.

All

les.

Keeney, R. L., "Value-Driven Expert Systems for Decision Support", in <u>Expert Judgment and Expert Systems</u>, J. Mumpower (editor), Springer Verlag, Berlin, 1987.

Technical Reports

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- Keeney, R. L., "Hierarchies of Objectives", Decision Analysis Series Technical Report, Systems Science Department, University of Southern California, Los Angeles, December 1986.
- Keeney, R. L., "Identifying and Structuring Values", Decision Analysis Series Technical Report, Systems Science Department, University of Southern California, Los Angeles, December 1986.
- Reeney, R. L., "Creating Alternatives Using Value-Focused Thinking", Decision Analysis Series Technical Report, Systems Science Department, University of Southern California, Los Angeles, December 1986.
- Keeney R. L., "Insights From Value Assessments", Decision Analysis Series Technical Report, Systems Science Department, University of Southern California, Los Angeles, December 1986.

Invited Presentations at National and International Scientific Conferences

- Keeney, R. L., "Value-Focused Thinking in Military Decision Making", TIMS/ORSA Joint National Meeting, San Francisco, California, May 14-16, 1984.
- Keeney, R. L. with A. Sicherman, "Airborne Radionuclide Decision Tree Model," TIMS/ORSA Joint National Meeting, San Francisco, California, May 14-16, 1984.
- Keeney, R. L., "Siting Energy and Waste Facilities: The Decision Analysis Approach," Annual Conference of the Department of Energy and Natural Resources of Illinois titled, "The Siting Puzzle: Piecing Together Economic Development and Environmental Quality," Chicago, Illinois, September 13-14, 1984.
- Keeney, R. L. with T. Eppel and D. von Winterfeldt, "Citizen Evaluation of Energy Systems: An Illustrative Use of the Public Value Forum," TIMS/ORSA Joint National Meeting, Boston, Massachusetts, April 29-May 1, 1985.
- Keeney, R. L., "Creating Objective Functions for Evaluating the Shipment of Spent Nuclear Fuel", TIMS/ORSA Joint National Meeting, Los Angeles, California, April 14-16, 1986.
- Keeney, R. L., "Value-Driven Expert Systems", International Conference on Multiattribute Decision Making via O.R.-Based Expert Systems, Passau, Germany, April 21-27, 1986.

- Keeney, R. L., "Siting Hydro-Electric Power Facilities", UNESCO Symposium on Decision Making in Water Resources Planning, Oslo, Norway, May 5-7, 1986.
- Keeney, R. L., "Evaluating Baltimore Cost and Electric Company's Coal Technology Options", Stanford University Program "Energy Investments in the 80's," Stanford, California, July 7-18, 1986.
- Keeney, R. L., "The Use of Values in Expert Systems", NATO Advanced Research Workshop on Expert Judgment and Expert Systems, Porto, Portugal, August 25-29, 1986.
- Keeney, R. L., "Quantification of Preferences", ORSA/TIMS Joint National Meeting, Miami, Florida, October 27-29, 1986.
- Keeney, R. L., "Decision Criteria for Siting Complex Industrial Facilities", Workshop on Technological Risk in Modern Society, International Institute for Applied Systems Analysis, Vienna, Austria, March 18-20, 1987.
- Keeney, R. L., "Identifying and Structuring Values", TIMS/ORSA Joint National Meeting, New Orleans, Louisiana, May 4-6, 1987.
- Keeney, R. L. with D. von Winterfeldt, "The Analysis and Its Role for Selecting Nuclear Repository Sites", International Federation of Operational Research Societies 11th Triennial Conference on Operations Research, Buenos Aires, Argentina, August 10-14, 1987. This is an invited National Society Contribution.

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